

# State of Utah DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

**Division of Oil Gas and Mining** 

JOHN R. BAZA
Division Director

December 21, 2007

CERTIFIED RETURN RECEIPT 7002 0510 0003 8603 3943

Richard Schreiber
Tintic Utah Metals, LLC
Chief Gold Mines Inc.
1629 Locust Street
Philadelphia, Pennsylvania 19103-6304

Subject: Review of Response to Stipulation Requirements; Tintic Utah Metals, LLC, Apex/Burgin

Project, M049/009; Chief Gold Mines Inc., Trixie Shaft, M/049/024, Task #1758, Utah County,

Utah

Dear Mr. Schreiber:

The Division has completed a review of the materials submitted to fulfill the Stipulation Agreement (as amended) of August 9, 2005. We have determined that your July 18, 2007 submittal satisfies Item #1 of the Modification of Stipulation to Continue and for Dismissal. The Division appreciates your efforts in providing this comprehensive plan. Now that the plan has been adequately developed, we have been able to calculate an appropriate bond estimate for reclamation of the sites. Please see the attached estimate.

Based on your statement in your July 18, 2007 letter, to combine the Apex/Burgin and the Trixie permits (M/049/009 and M/049/024), the attached final reclamation cost estimate (of \$471,200) was prepared assuming that this would take place. With the proposed merger of these permits, the Division has determined that there is currently sufficient reclamation surety with the current amount posted for each permit (\$430,400 for the Apex/Burgin and \$57,900 for the Trixie, for a combined total \$488,300). Without the merger, the surety for the Trixie would need to be increased by \$5,400, for a total of \$63,300 (this difference is due to shared mobilization/demobilation costs, that if separate permits, could not be shared).

To finalize the proposed merger, the Division needs to know which corporate entity the permit will be with. The reclamation surety and contract documents will need to be amended to reflect this change. A check with the Utah Department of Commerce has revealed that Chief Consolidated Mining Company, Chief Gold Mines Inc. and Tintic Utah Metals, LLC are all entities that have expired and no longer are registered to do business in the State of Utah. This will need to be corrected with the Department of Commerce. You will then need to contact Jed Pearson at (801) 538-5382 or email at

OIL, GAS & MINING

Richard Schreiber Page 2 of 2 M/049/009 December 21, 2007

jedpearson@utah.gov to obtain the necessary forms to amend the surety and reclamation contract documents.

Item #3 of the Modification of Stipulation to Continue and for Dismissal requires you to now provide the revised surety amount within 30 days. Essentially this requires either the additional \$5400 for the Trixie mine reclamation or the documentation for the merger and the revised reclamation surety and contract documents that will reflect the merger.

At this time, we also ask that you provide two clean copies of the revised plan. Once the reclamation surety and reclamation contract documents are amended and approved, the Division will stamp the plan approved and return one copy for your records. We will then evaluate the terms of the Modification of Stipulation to continue and for Dismissal and determine what if any other course of action needs to be taken in order to have the Board of Oil Gas and Mining dismiss the matter.

We appreciate your help in resolving this situation. Please call me at (801) 538-5325 or Lynn Kunzler at (801) 538-5310 if you have questions.

Sincerely,

Daron R. Haddock Permit Supervisor

R. Haddock

DRH:pb

Attachments: reclamation cost estimate

cc: Tom Gast w/ attachment

Mary Ann Wright, DOGM w/o attachments

Steve Alder, AAG w/o attachment Susan White, DOGM w/o attachment

Jed Pearson, w/o attachment

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F	RECLAMATION SURETY ESTIMA	ATE	last revision -		12/17/2007		
N D	Mine Operator Tintic Utah Metals, LLC Mine Name Apex/Burgen Mine DOGM file Number M/049/009 Prepared by Utah State Division of Oil, Gas & Mining						
F	Reclamation Details: Summary Pa	age					
	Apex #2 Area	Page 2					
	Burgen #1 Area	Page 3	·				
ŀ	Burgen #2 Area	Page 4	<del></del>				
	Dry Stack Facility	Page 5	<del>-</del>				
	Zuma Clay Pit	Page 6	<b>-</b> _				
	Trixie Area	Page 7	_				
<u> </u>	Estimated total disturbed area f	for this mine =	90.4 Acres	s	<del></del>		
_	Apex #2 Area	5.3					
	Burgen #1 Area	17.8	-				
	Burgen #2 Area	22.7	-50-				
	Dry Stack Facility	26.5	_				
	Zuma Clay Pit	8	_				
	Trixie Area	10.1					
	Total Acres =	90.4	-				
_			<b>-</b> 				
<u> </u>	Estimated reclamation cost for	each area *					
х	Apex #2 Mine Area				\$27,700.00		
x	Burgen #1 Complex Area				\$51,071.00		
х	Burgen #2 Complex Area				\$154,845.00		
x	Dry Stack Facility				\$42,199.00		
	Zuma Clay Pit				\$10,209.00		
х	Trixie Area				\$36,670.00		
	·		Subtotal		\$322,694.00		
	*does not include mob/demob, super	vision or contingency					
<u> </u>	lobilization, supervision, contingency and esc	calation costs combined	for all areas				
Ē	quipment mobilization	5 equip		2000	\$10,000.00		
	-		Subtotal		\$332,694.00		
s	Supervision -10% of estimate				\$33,269.40		
	-		Subtotal		\$365,963.40		
1	0% Contingency				\$36,596.34		
			Subtotal		\$402,559.74		
E	Scalate for 5 years at 3.20% per year	ar			\$68,665.80		
	. , ,		Total		\$471,225.54		
R	Rounded surety amount in year 2012 doll	ars			\$471,200.00		
	Average cost per disturbed acre =	\$5,212					
1							

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Tintic Utah Metals, LLC

Mine Operator: Tintic Utah
Mine Name (Area): Apex #2
DOGM File Number: M/049/009

Reclamation Details: APEX #2

Facilities - Headframe, Hoist Building, Emergency Hoist Building, Dry Building and Office, Substation.

Shaft Closure,

No topsoil - amend with 10t/ac biosolids

85T/ac lime to nutralize dumps, disked into top 6 inces.

All facilities removed, spur roads reclaimed.

Dump regraded to 3h:1v slope

-Estimated total disturbed area for this mine =

5.3 acres

last revision

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Note: actual unit costs may vary according to site conditions  Activity	Quantity	Units	ost update \$/unit	10/25/06 \$	Note
Safety gates, signs, etc (mtls & installation)	1	sum	500	500	(1a)
Demolition of buildings & facilities	50800		0.26	13208	
Demoliton of headframe	465	lf	6.14	2855	(3)
Ripping access roads- D8R dozer	0.25	acre	288.00	72	(7)
Regrading access roads - D8R dozer	0.25	acre	697.18	174	(9)
Regrading waste dump slopes - D8R dozer	2000	CY	0.66	1320	(8)
Ripping waste dump tops		acre	288.00	576	
Dump Nutralizing (85T/ac ag lime)		acre	850.00	2550	(1c)
Disking Lime into top 6 inches	3	acre	30.00	90	(1d)
Compliantostina		D	1000.00	4000	(4h)
Sampling/testing		lump sum		1000	(1b)
Topsoil replacement - D8R dozer	263		0.66	174	(8)
Ripping/Seedbed Prep - D8R dozer COST PER HOUR		асге	272.50	1444	(9h)
Composted manure (10 ton/acre)		acre	350.00	1855	(1f)
Broadcast seeding	5.3	acre	280.00	1484	(1g)
General site cleanup & trash removal	5.3	acre	75.00	398	(1h)
Subtotal of Reclamation Costs				\$27,700	
Equipment mobilization	2	equip	2000	4000	(1i)
Equipment modulation		Subtotal	2000	31700	
Reclamation supervision -10% of reclamation estimate		Cabicia,		3170	
		Subtotal		34870	
10% Contingency				3487	
• ,		Subtotal		38357	
Escalate for 5 years at 3.20% per year				6543	
• • •	•	Total		44899	

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Tintic Utah Metals, LLC

Mine Operator: Mine Name (Area): Burgin #1

DOGM File Number: M/049/009

Reclamation Details: Burgin #1

Facilities - Headframe, Hoist Building, Machine Shop, Wood Shop, Electrical Shop, Sand House, Dry Building,

Substation, Fresh Water Storage Pond.

1 shaft closed

No Topsoil Available - amend soil materials with biosolids 10t/ac.

Dump regraded to 3h:1v slope

Warehouse to remain for post mining use

-Estimated total disturbed area for this mine =

17.8 acres

12/17/2007

last revision

Note: actual unit costs may vary according to site conditions		last unit cost update		10/25/06	
Activity	Quantity	<u>Units</u>	\$/unit	\$	Note
Safety gates, signs, etc (mtls & installation)	1	sum	500	500	(1)
Demolition of buildings & facilities	54776	cf	0.26	14242	(2)
Demolition of headframe	465	If	6.14	2855	(3)
Regrading waste dump slopes - D8R dozer	19000	CY	0.66	12540	(8)
Ripping stockpile & compacted areas - D8R dozer	10.8	acre	288.00	3110	(9)
Soil Sampling/Testing	1	Lump Sum	1000.00	1000	(1b)
Ripping/Seedbed Prep - D8R dozer COST PER HOUR		hour	272.50	4905	(9h)
Composted manure (10 ton/acre)	16.8	acre	350.00	5880	(1e)
Broadcast seeding	16.8	acre	280.00	4704	(1f)
General site cleanup & trash removal	17.8	acre	75.00	1335	(1g)
Subtotal of Reclamation Costs (for summary sheet)				\$51,071	
Equipment mobilization	4	equip	2000	8000	(1h)
Reclamation supervision -10% of reclamation estimate		Subtotal		59071 5907	
10% Contingency		Subtotal		64978 6498	
		Subtotal		71476	
Escalate for 5 years at 3.20% per year		Total		12192 83668	
Rounded surety amount in year 2012 \$				\$83,700	<del></del>
Average cost per disturbed acre =	\$4,700				

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Tintic Utah Metals, LLC

Mine Operator: Mine Name (Area): Burgin #2
DOGM File Number: M/049/009

Reclamation Details: Burgin #2

Facilities - Headframe, Hoist Building, Engineering & Admin. Offices, Mechanical Shop, Crushing Plant, 2 Ore Storage Bins, Consentrator (mill), Thickeners, Assay Building, Small Storage Building, Substation

1 shaft closed

Dump regraded to 3h:1v slope

No Topsoil Available - amend soil materials with biosolids 10t/ac.

Office, Lab and Shop to remain for post mining use.

-Estimated total disturbed area for this mine =

22.7 acres

last revision

12/17/2007

Note: actual unit costs may vary according to site conditions		last unit o	cost update	10/25/06	
Activity	Quantity	<u>Units</u>	\$/unit	\$	Note
Safety gates, signs, etc (mtls & installation)	1	sum	500	500	(1a)
Demolition of buildings & facilities	335460	cf	0.26	87220	(2)
Demolition of headframe	700		6.14	4298	(3)
Demolition of ore bins and thickeners	32304	cf	0.27	8722	(4)
Regrading waste dump slopes - D8R dozer	43000	CY	0.66	28380	(8)
Ripping stockpile & compacted areas - D8R dozer	11	acre	288.00	3168	(9)
Soil Sampling/Testing	1	Lump Sum	1000.00	1000	(1b)
Ripping/Seedbed Prep - D8R dozer COST PER HOUR	22	hour	272.50	5995	(9h)
Composted manure (10 ton/acre)	22	acre	350.00	7700	(1f)
Broadcast seeding	22	acre	280.00	6160	(1g)
General site cleanup & trash removal	22.7	acre	75.00	1703	(1h)
Subtotal of Reclamation Costs (for summary sheet)				\$154,845	
Equipment mobilization	4	equip	2000	8000	(1i)
		Subtotal	,	162845	· · · · · · · ·
Reclamation supervision -10% of reclamation estimate				16285	
·		Subtotal		179130	
10% Contingency				17913	
		Subtotal		197043	
Escalate for 5 years at 3.20% per year				33610	
		Total		230653	
Rounded surety amount in year 2012 dollars	-			\$230,700	
Average cost per disturbed acre =	\$10,163				

RECLAMATION SURETY ESTIMATE
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Mine Operator: Tintic Utah Metals, LLC
Mine Name (Area): Dry Stack Tailings Facility
DOGM File Number: M/049/009

Reclamation Details: Dry Stack Tailings Facility

Facilities: None

Topsoil replacement depth - 1 foot Dump regraded to 4h:1v slope

Vegetated sediment pond to remain post mining

No more than 10 acres disturbed at any one time (incl. 1 acre of

topsoil stockpile & 0.5ac access road)

-Estimated total disturbed area for this mine =

26.5 acres

Note: actual unit costs may vary according to site conditions		last unit cost update		10/25/06	
<u>Activity</u>	Quantity	Units	\$/unit	\$	Note
Pagrading tailings DSD days	<del>-</del>		<del>                                     </del>	4000	(7)
Regrading tailings - D8R dozer		acre	697.18	4880	(7)
Tailings - Final Regrading - D8R dozer	+ '	acre	288.00	2016	(7h)
Ripping access roads- D8R dozer	0.5	acre	288.00	144	(7h)
Regrading access roads - D8R dozer	0.5	acre	697.18	349	(7)
Sampling/testing	1	lump sum	500.00	500	(1b)
Topsoil replacement - scraper (8.5 ac)	13700		1.40	19180	
Ripping topsoiled areas prior to seeding	10	acre	288.00	2880	(9h)
Fertilizing (100 lb/acre diammonium phosphate)	10	acre	100.00	1000	(1e)
Composted manure (10 ton/acre)	22	acre	350.00	7700	(1f)
Broadcast seeding	10	acre	280.00	2800	(1g)
General site cleanup & trash removal	10	acre	75.00	750	(1h)
Subtotal of Reclamation Costs (for summary sheet)				\$42,199	
Equipment mobilization	2	equip	2000	4000	(1i)
		Subtotal		46199	
Reclamation supervision -10% of reclamation estimate				4620	
		Subtotal		50819	
10% Contingency				5082	
		Subtotal		55901	
Escalate for 5 years at 3.20% per year				9535	
		Total		65436	·
Rounded surety amount in year 2012 dollars				<b>\$</b> 65,400	-
Average cost per disturbed acre	= \$2,468				

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Mine Operator:

Tintic Utah Metals, LLC

Mine Name (Area): Zuma Clay Pit DOGM File Number: M/049/009

Reclamation Details: Zuma Clay Pit

Facilities - None

1.2 acre access road reclaimed

Expansion into pre-law disturbances with no topsoil available

Dump regraded to 3h:1v slope

North highwall benched

South highwall granted variance for reclamation

-Estimated total disturbed area for this mine =

8 acres

Note: actual unit costs may vary according to site conditions		last un	it cost update	10/25/06	
Activity	Quantity	<u>Units</u>	\$/unit	\$	Note
Regrading benches - D8R dozer	1	acre	557.00	557	(9)
Ripping waste dump tops - D8R dozer	2	acre	288.00	576	(9)
Ripping stockpile & compacted areas - D8R dozer	5	acre	288.00	1440	(9)
Regrading/Ripping access roads - D8R dozer	1.2	acre	288.00	346	(7h)
Surface drainage restoration or construction	230	LF	5.00	1150	(1)
Soil Sampling/Testing	1	Lump Sum	500.00	500	(1b)
Composted manure (10 ton/acre)	8	acre	350.00	2800	(1f)
Broadcast seeding	8	acre	280.00	2240	(1g)
General site cleanup & trash removal	8	acre	75.00	600	(1h)
Subtotal of Reclamation Costs (for summary sheet)				\$10,209	
Equipment mobilization		equip	1000	2000	(1i)
Reclamation supervision -10% of reclamation estimate		Subtotal		12209 1221	
10% Contingency		Subtotal		13429	
10 % Contingency	,	Subtotal		1343 14772	
Escalate for 5 years at 3.20% per year				2520	
		Total		17292	
Rounded surety amount in year 2012 dollars  Average cost per disturbed acre =	\$2,162			\$17,300	
· · · · · · · · · · · · · · · · · · ·	¥-,·				

last revision

12/17/2007

Mine Operator Tintic Utah Metals, LLC

Mine Name

Trixie Mine

DOGM file Number M/049/024

Prepared by Utah State Division of Oil, Gas & Mining

Reclamation Details:
2 headframes, 2 hoist buildings, Office, Compressor Building, Dry Building, Water tank, Fan

No topsoil - amend with 10t/ac biosolids

85T/ac lime to nutralize dumps, disked into top 6 inces.

All facilities removed, spur roads reclaimed.

Dump regraded to 3h:1v slope

-Estimated total disturbed area for this mine =

10.1 acres

Note: actual unit costs may vary according to site conditions		last un	it cost update	10/25/06	
Activity	Quantity	<u>Units</u>	\$/unit	\$	Note
Demolition of buildings & facilities	59966	cf	0.26	15591	(2)
Demoliton of main headframe	465	lin.ft	6.14	2855	(3)
Demolition of borehole headframe	200	lin.ft	6.14	1228	(3)
Regrading waste dump slopes - D8R dozer	2000	CY	0.66	1320	(8)
Ripping waste dump tops - D8R dozer	10.1	acre	288.00	2909	(9)
Ripping access roads- D8R dozer		acre	288.00	72	(9)
Regrading access roads - D8R dozer	0.25	acre	697.18	174	(7)
Sampling		lump sum	1000.00	1000	(1b)
Dump Nutralizing (85T/ac ag lime)	5	acre	850.00	4250	(1c)
Disking Lime into top 6 inches	5	acre	30.00	150	(1d)
Composted manure (10 ton/acre)	10.1	acre	350.00	3535	
Broadcast seeding	10.1	acre	280.00	2828	(1g)
General site cleanup & trash removal	10.1	acre	75.00		(1h)
Subtotal of Reclamtion Costs				\$36,670	
Equipment mobilization	4	equip	2000	8000	_(1i)_
		Subtotal		44670	
Reclamation supervision -10% of reclamation estimate		+		4467	
		Subtotal		49137	
10% Contingency				4914	
		Subtotal		54051	
Escalate for 5 years at 3.20% per year				9220	
		Total		63270	
Rounded surety amount in year 2012		<u> </u>		\$63,300	
Average cost per disturbed acre =	6264				

File: O:\M049-Utah\M0490024-TrixieShaft\bond\05212007.xls

## Source notes of unit costs used in surety calculations

### Note #

- (1a) DOGM lump sum assumed
- (2) Means Heavy Construction Cost Data 2006, 02220-310-0100, Building Demolition, steel
- (3) Means Heavy Construction Cost Data 2006, 02225-390-2000, Steel framing beams, 4"X6"

Trixie headframe 85' tall (85'x2)+(100'x2)+25% bracing = 465 LF

Borehole headframe 35' tall (35'x2)+(45'x2)+25% bracing = 200 LF

Burgin #1 headframe - Same size as Trixie headframe

Burgin #2 headframe - 125' tall (125'x2)+(155'x2)+25% bracing = 700 LF

Apex #2 headframe - Same size as Trixie headframe

(4) Means Heavy Construction Cost Data 2006, 02220-400-0100; Explosive building demolition, concrete, Ore bins + 750t @ 12cf/t=21,000cf.

Thickeners = 15' radiusx8' high = 5652 cf/thickener x2 thickeners = 11,304 cf

- (6) Means 2006 wage for building laborer, Crew A-1, incl. O & P
- (7) Means 2006 & Blue Book 2nd Half 2006, Cat Dozer, mtl 2550 lb/CY, 50 ft push, 2 ft depth
- (7h) Means 2006 & Blue Book 2nd Half 2006, Cat Dozer size specified
- (8) Means 2006 & Blue Book 2nd Half 2006, Cat Dozer, mtl 2550 lb/CY, 100 ft push, 1 ft depth
- (9) Means 2006 & Blue Book 2nd Half 2006, Cat Dozer, multi shank rippers, speed 1.0 mph
- (9h) Means 2006 & Blue Book 2nd Half 2006, Cat Dozer, multi shank rippers, speed 1.0 mph
- (12) Means 2006 & Blue Book 2nd Half 2006: Cat 627G P-P, mtl 2550 lb/CY, 2,000 ft haul one-way, grade +/- 4%,
- (1b) DOGM general estimate soil testing
- (1c) DOGM general estimate lime \$10/ton
- (1d) DOGM general estimate disking
- (1e) DOGM general estimate fertilizing
- (1f) DOGM general estimate manure \$19/ton delivered, \$16 ton/acre spreading
- (1g) DOGM general estimate broadcast seeding
- (1h) DOGM general estimate site cleanup & trash removal
- (1i) DOGM general estimate equipment mobilization